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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant	:	Sean Hu, et al.
Application No.	:	09/684,808
Filed	:	October 6, 2000
Title	:	APPARATUS, SYSTEMS AND METHODS FOR INTERFACING WITH DIGITAL SCALES CONFIGURED WITH REMOTE CLIENT COMPUTER DEVICES
Grp./Div.	:	3627
Examiner	:	Cuff, Michael A.
Docket No.	:	PSTM0008MRK

Mail Stop Amendment  
Commissioner for Patents  
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**DECLARATION UNDER 37 C.F.R. SECTION 132  
BY WILLIAM W. SMITH III  
FILED IN SUPPORT OF  
AMENDMENT AND RESPONSE TO OFFICE ACTION DATED MAY 3, 2006**

**BACKGROUND INFORMATION ABOUT THE DECLARANT**

1. I, WILLIAM W. SMITH III, am Chief Technology Officer ("CTO") of iShip Inc., a wholly owned subsidiary of United Parcel Service, which is one of the assignees of the above-mentioned application. I have been in the employ of iShip Inc., or one of its predecessor's in interest, since at least 1995, and in the present capacity as Chief Technology Officer since at least 1997.

2. iShip Inc. is an online provider of a multi-service, multi-carrier, Internet-enabled server-based shipping system (at, among others, [www.iship.com](http://www.iship.com)) for use by small volume shippers such as small businesses and home offices. The multi-carrier, multi-service, Internet-based shipping system that iShip Inc. offers provides shipping users ("shippers") with a cross-comparison of shipment rating, service options, delivery schedules and other services by each of the multiple carriers for each of multiple services so that a shipper can compare multiple services offered by the multiple carriers and select one service offered by one of the multiple carriers to ship a parcel. When I first became involved in the development of this particular shipping system, I worked for Movelt! Software Inc. ("Movelt!"), a company that was founded in 1997; I was one of three founders. Movelt! eventually became iShip.com, Inc., which eventually merged with Stamps.com Inc. and which is currently a wholly owned subsidiary of United Parcel Service ("UPS"). As of the date of this Declaration, iShip Inc. and Stamps.com are joint owners in common of the subject invention.

3. I hold a Master of Science degree, granted in 1988, in Industrial Engineering and Operations Research from Virginia Tech.

4. I have reviewed, and am familiar with, the above-identified patent application.

5. I have reviewed, and am familiar with, the Office Action regarding the above-identified patent application dated May 3, 2006.

6. I have reviewed, and am familiar with, Koenck et al. (U.S. Patent No. 6,006,100; "Koenck"), the reference entitled How Computers Work (by Ron White, (Que Corporation, 1999); "How Computers Work"), and Underwood (U.S. Patent No. 6,523,027; "Underwood"), that were cited by the May 3, 2006 Office Action.

## **BACKGROUND INFORMATION REGARDING THE INVENTION**

7. At Movelt!, we initially defined our primary market as small enterprises and individuals who were small-volume shippers.

8. By the late 1990's, members of our primary market were predominately accessing the Internet via browser software, or other software that is adapted to retrieve and render hyper-media content. Then, and today, browser software (and other software that is adapted to retrieve and render hyper-media content) is installed on a computer device and executes as a type of virtual machine; browser software (and other software that is adapted to retrieve and render hyper-media content) executing on a computer device executes within the operating system that controls the computer device. References herein to browser software pertain equally to other types of software that are adapted to retrieve and render hyper-media content.

9. By the late 1990's, various small enterprises and individuals, the very members of our primary market, had begun to install firewalls to protect their computer systems from unauthorized access. The firewalls prevalent during the late 1990's prevented, to some extent, computers within the firewall from downloading software from various external sources (sources outside the firewall), including, e.g., Internet sources.

10. At Movelt!, because so many of our potential customers were installing, or had installed, firewalls, we wanted to provide an Internet-based system that would be compatible with, and not be compromised by, firewall protection measures. Because firewalls installed by many of our potential customers would prevent the downloading and installation of software on their client computers, our initial approach in developing an Internet-enabled, server based shipping

system was to provide a completely browser-accessed system that would not require a client user to download or install any client software on the client user's client computer.

11. Client software is software that is installed on a client computer; client software, once installed, executes on the client computer and "talks" to corresponding server software that is executing on a server computer when the client computer accesses the server computer. Client software, because it is installed on a client computer, has the ability to access information about the client computer, and can then, if asked by the corresponding server software, provide the information about the client computer to the server software.

12. During the late 1990's, browser software was very limited as to providing information about the client computers on which the browser software executed. Specifically, during the late 1990's, browser software that predominated the industry did not provide, among other things, information about peripheral devices, such as, e.g., input peripheral devices such as digital scales, that were configured with the client computer on which the browser software executed. That is, with respect to the browser software that predominated the industry during the 1990's, it was not possible for an Internet-enabled, server-based system that was accessed by browser software to query the browser software and directly access via the browser software, information about peripheral devices, such as, e.g., input peripheral devices such as digital scales, that were configured with the client computer on which the browser software executed.

13. As part of our system design, we wanted to provide client users with the ability to use digital scales, of one of various makes and models of the client user's selection, configured with the client user's client computer with which to weigh parcels to be shipped, and feed the measured weight into our web-based shipping management system. Notably, it was expected that different client

users would use weighing devices of various makes and models. Further, it was known that weighing devices of various makes and models communicated (received instructions, and provided weight information) in different ways, in different formats. Therefore, we wanted to enable our web-based, Internet-enabled shipping management computer system, that would be accessed via browser software executing on client computers, to obtain information necessary for communicating with weighing devices peripheral to those client users' client computers, even though those peripheral weighing devices would vary as to make and model.

14. However, during the late 1990's, a system such as ours that was accessed by browser software, and that did not have corresponding client software executing on the client computer on which the browser software was executing, did not have direct access to information about input peripheral devices, such as, e.g., digital scales, that were configured with the client computer on which the browser software was executing. Therefore, the problem was, in the context of a web-based, Internet-enabled shipping management computer system that would be accessed via browser software executing on client computers, to be able to determine information about each particular weighing device attached to a each respective client computer device in order to facilitate communications with, and processing data received from, such weighing devices.

15. During the late 1990's, we found that ActiveX controls were an exception to firewall-prevented installations and were not blocked by most firewalls.

16. We subsequently developed an exemplary embodiment that provided an ActiveX control dedicated to communications with peripheral devices configured with client computer devices. We sometimes referred to that ActiveX control as the "Shipping Station ActiveX Control". We structured the Shipping Station

ActiveX Control as executable computer program instructions for automatic installation on a client computer in response to an interaction by the client computer with our Internet-enabled shipping management system website. For example, we structured our Internet-enabled shipping management system website and the Shipping Station ActiveX Control in such a way so that if a user of a client computer placed their cursor on a weight input field on a page in our Internet-enabled shipping management system website, the system would check configuration data previously provided by the user (such as during registration). If the previously-provided configuration data indicated that the user's computer was configured with a digital scale, then, unless a firewall or other client-computer software blocked the Shipping Station ActiveX Control, the Shipping Station ActiveX Control was automatically installed to execute on the client computer. See *also*, Specification of the present application ("Specification"), p. 32, lines 1-10; *id.*, p. 32, lines 16-23.

17. The Shipping Station ActiveX Control provided a table (sometimes referred to as the "scale table"). The scale table contained entries for each supported scale make and model. For each scale make and model supported, the scale table also provided logic to process the communication information for the respective scale make and model. The Shipping Station ActiveX Control and the scale table were requested by a web page (sometimes referred to as the "System/scale interface") that provided the above-mentioned weight entry field. A shipping user viewing the System/scale interface web page would activate the weight entry field by, for example, placing the user's cursor in the weight input field. Once the weight input field was activated, if the above-mentioned configuration data indicated that the user's client computer device was configured with a digital scale, then the Shipping Station ActiveX Control was automatically installed on the client computer device. See *also*, Specification, p. 32, lines 1-10; *id.*, p. 32, lines 16-23.

### DISCUSSION OF THE KOENCK REFERENCE

18. Koenck discloses providing wireless communication between a portable hand held data terminal (element 18 in FIG. 1 of Koenck) and a plurality of peripheral devices (elements 33-39 in FIG. 1 of Koenck) in the context of a Local Area Network ("LAN"). See Koenck, col. 3, lines 45-48; Koenck, col. 3, lines 34-38; Koenck, col. 8, lines 6-19; Koenck, col. 9, lines 35-39 ("By incorporating the referred to LAN control or master protocol in the memory 32 of the communication device 18, the communication device 18 becomes effectively a LAN controller for a number of data terminals 33-39 as shown in FIG. 1"). Koenck discloses "[p]ortable measuring devices which communicate by low power transceivers through a communication controller with a printer device collect weight and size data on articles to be shipped." Koenck, Abstract. Koenck further explains that "...scales 36 ... would be typical data input devices, in that data are obtained by such devices from sources external to the system 10, to be 'transduced' or translated by the devices into digital binary data signals which can be communicated by electronic transmission within the system." Koenck, col. 10, lines 39-47. Koenck yet further explains that:

The scales 36 are contemplated to be digital electronic scales. As such the scales record a measured weight as electronically encoded digital signals. The scales may also provide a human readable digital output. The recorded weight is further communicable by digital signal transmission. Scales having weight cells for transducing weight into an electronic data signal with a value equivalent to the magnitude of the sensed weight are generally known.

Koenck, col. 11, lines 5-12.

19. It is my opinion that it is well known in the art that a computer device, such as the Koenck host computer, referred to in Koenck as element 11, or the Koenck LAN controller, referred to in Koenck as element 18, can be programmed

to communicate with, and process data from, a device of a particular make and model that is a dedicated peripheral to the computer device.

20. It is my opinion that there is no indication in Koenck that the scales, referred to in Koenck as element 36, would differ in make and/or model from one Koenck LAN to another.

21. It is further my opinion that there is no indication in Koenck that either the LAN controller 18, or the host computer 11, are programmed, or otherwise configured, to communicate with, or process data from, scales 36 of different makes and/or models that would "transduce" weight into digital binary data signals in a way that differs from the way in which any other scale 36 would transduce weight or that would communicate in a way that would differ from one scale 36 to another scale 36.

22. It is still further my opinion that there is no indication in Koenck that there is any need for the Koenck host computer 11, or any particular Koenck LAN controller 18, to be programmed, or otherwise configured, to communicate with scales 36 of different makes and/or models that would "transduce" weight into digital binary data signals in a way that differs from the way in which any other scale 36 would transduce weight.

23. In view of the above-given reasons, it is yet further my opinion that there is no indication in Koenck that either the Koenck host computer 11, or any particular Koenck LAN controller 18, is programmed, or otherwise configured, to determine, or otherwise obtain, information about scales 36 that are peripheral to any LAN controller 18 to facilitate communications with, and processing of data from, scales 36.



**DISCUSSION OF THE HOW COMPUTERS WORK REFERENCE**

24. How Computers Work explains that "[i]nside the PC, a *universal serial bus (USB) controller* – a set of specialized chips and connections – acts as an interface between software and hardware. Ron White, How Computers Work, (Que Corporation, 1999), p. 214, Numbered Paragraph 1.

25. How Computers Work further explains that "[a]pplications, the operating system, and device drivers – which provide details about how particular hardware devices work – send commands and data to the USB *host hub*, located on the controller." How Computers Work, p. 214, Numbered Paragraph 1.

26. How Computers Work still further explains that "...the USB host controller tells the new device to identify itself, finds out what it requires for sending and receiving data, and assigns the device an identification number." How Computers Work, p. 215, Numbered Paragraph 8.

27. It is my opinion that it is well known in the art that a computer device with a USB, as described in How Computers Work, can be programmed to communicate directly with devices peripheral to it. Notably, depending on the peripheral hardware device, however, installation of a separate software application that provides the computer device with information about communication details for the particular peripheral device is sometimes necessary.

28. It is my opinion that How Computers Work describes how a single computer, with a USB, obtains information necessary to communicate with devices peripheral to it.

29. It is my opinion that, as compared to obtaining information necessary to communicate with devices peripheral to a particular system (such as is disclosed in How Computers Work), during the late 1990's, web browser software (or other software that is adapted to retrieve and render hyper-media content) such as is used to access various embodiments of various Claims of the present application (see, e.g., amended Claims 1 and 7) did not provide a web-based, Internet-enabled computer system with detailed information about communicating with devices that were peripheral to the client computer on which the browser software executed.

30. Instead, for reasons described previously above, it is my opinion that as compared to being able to directly access detailed information about communicating with devices peripheral to client computers (such as is disclosed in How Computers Work), a web-based, Internet-enabled computer system is, without some other means, isolated from information about communicating with devices peripheral to client computers.

31. Further, it is my opinion that How Computers Work does not address, describe, or provide any information about, how a web-based, Internet-enabled computer system can obtain information about devices that are peripheral to client computers that access the computer system using browser software.

#### **DISCUSSION OF THE UNDERWOOD REFERENCE**

32. Underwood was relied upon in the Office Action as teaching "...a web-base[d] e-commerce architecture. From column 309, lines 20-25, 'Today's internetwo[r]king environment requires connections from the corporate network to a variety of resources. These include clients and partners, vendors and

suppliers, the Internet and remote users, just to name a few. This interconnectivity leads to complex security issues that need to be addressed.”

Office Action, p. 5, ¶3.

33. In the Office Action, the Examiner concluded that “[b]ased on the teaching of Underwood, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the Koenck communication system to incorporate a web-based architecture (includes browser software) in order to improve security between component resources of the system.” Office Action, p. 5, ¶4.

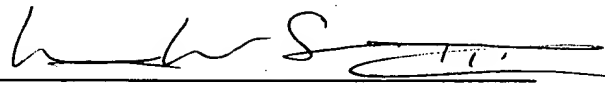
34. It is my opinion that, as compared to any security issues on which the Office Action bases its reliance on Underwood, the rejected Claims of the present application are directed to communicating with devices peripheral to client computers that access the web-based shipping management system.

35. It is further my opinion that Underwood does not address, describe, or provide any disclosure regarding resolving the need to communicate with devices peripheral to client computers that access a web-based, Internet-enabled computer system using a web browser or other software for retrieving or rendering hyper-media content.

36. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or

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both, under Section 1001, Title 18 of United States Code and that such willful false statements may jeopardize the validity of the application or any corresponding U.S. patent.

Date: SEP 25, 2006 

William W. Smith III